

# Practice A

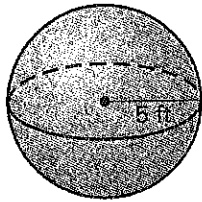
For use with pages 517–523

Complete the statement.

1. A ? is the set of all points in space that are the same distance from a point.
2. A geometric plane passing through the center of a sphere divides it into two ?.

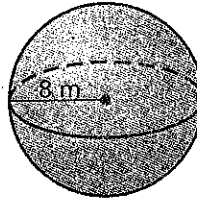
Use the formula  $\text{Surface area} = 4\pi(\text{radius})^2$  to find the surface area of the sphere. Round your answer to the nearest whole number.

3.



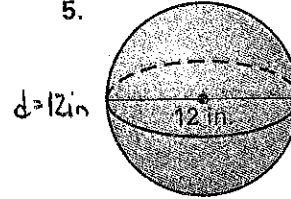
$r = 5 \text{ ft}$

4.



$r = 8 \text{ m}$

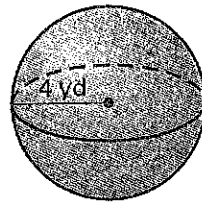
5.



$d = 12 \text{ in}$

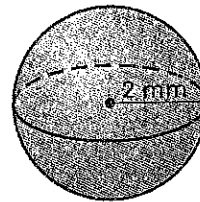
Use the formula  $\text{Volume} = \frac{4}{3}\pi(\text{radius})^3$  to find the volume of the sphere. Round your answer to the nearest whole number.

6.



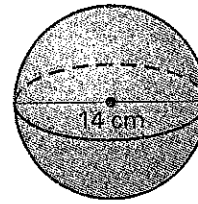
$r = 4 \text{ yd}$

7.



$r = 2 \text{ mm}$

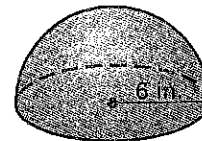
8.



$d = 14 \text{ cm}$

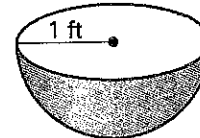
Find the volume of the hemisphere. Round your answer to the nearest whole number.

9.



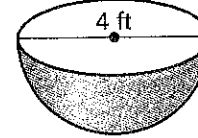
$r = 6 \text{ in}$

10.



$r = 1 \text{ ft}$

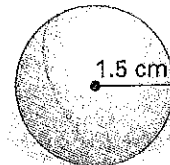
11.



$d = 4 \text{ ft}$

A table tennis ball has a radius of 1.5 centimeters.

12. Find the surface area of the table tennis ball. Round your answer to the nearest whole number.
13. Find the volume of the table tennis ball. Round your answer to the nearest whole number.



$r = 1.5 \text{ cm}$

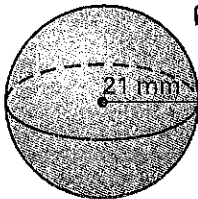
**Practice B**

For use with pages 517–523

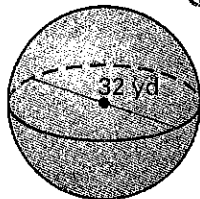
1. Complete the statement: A hemisphere has ? the volume of a sphere.

Find the surface area of the sphere. Round your answer to the nearest whole number.

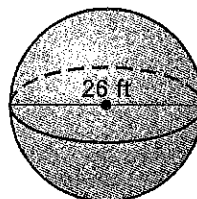
2.

 $r = 21 \text{ mm}$ 

3.

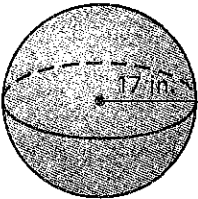
 $d = 32 \text{ yd}$ 

4.

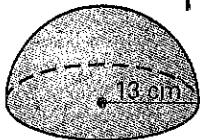
 $d = 26 \text{ ft}$ 

Find the volume of the sphere or hemisphere. Round your answer to the nearest whole number.

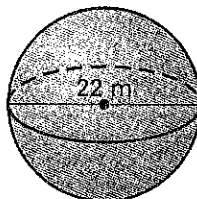
5.

 $r = 17 \text{ in}$ 

6.

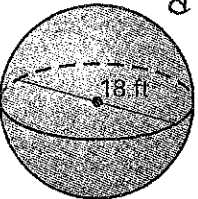
 $r = 13 \text{ cm}$ 

7.

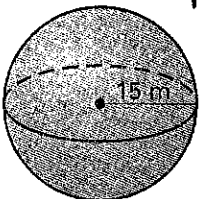
 $d = 22 \text{ m}$ 

Find the surface area and volume of the sphere. Round your answer to the nearest whole number.

8.

 $d = 18 \text{ ft}$ 

9.

 $r = 15 \text{ m}$ 

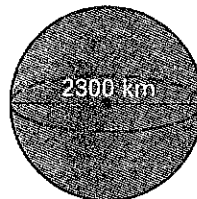
10.

 $d = 24 \text{ mm}$ 

11. Find the volume of a sphere with a radius of 3 feet. Round your answer to the nearest whole number.
12. Find the volume of a hemisphere with a radius of 3 feet. Round your answer to the nearest whole number.

The diameter of the planet Pluto is about 2300 kilometers.

13. Find the surface area of Pluto.
14. Find the volume of Pluto.

 $d = 2300 \text{ km}$